

REMARKS

This communication is a full and timely response to the aforementioned Final Office Action dated April 24, 2009 (hereinafter "the Office Action" unless otherwise stated). By this communication, claims 1-3, 56, and 59 are amended. Claims 1-9 and 50-64 are pending in the application. Claims 1 and 57 are independent.

Reconsideration of the application and withdrawal of the rejections of the claims are respectfully requested in view of the foregoing amendments and the following remarks.

Rejections Under 35 U.S.C. § 112

Claims 2, 3, 8, 9, 52, and 59-60 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The rejection is believed overcome based on the amendments to claims 2 and 59. Accordingly, withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. § 101

Claims 1-9 and 50-56 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

In Bilski, the Federal Circuit held that a "claimed process is surely patent-eligible under § 101 if (1) it is tied to a particular machine, or (2) it transforms a particular article into a different state or thing." In re Bilski, 88 USPQ2d 1385, 1391 (2008) (emphasis added).

Features of claim 1 constitute a transformation of data representing physical objects. Bilski supports the proposition that the transformation of data representing physical objects is sufficient to pass the transformation prong of the machine-or-transformation test. See Bilski, excerpted in part below:

We further note for clarity that the electronic transformation of the data [representing physical and tangible objects] itself into a visual depiction in Abele [In re Abele, 684 F.2d 902 (CCPA 1982)] was sufficient; the claim was not required to involve any transformation of the underlying physical object that the data represented. We believe this is faithful to the concern the Supreme Court articulated as the basis for the machine-or-transformation test, namely the prevention of pre-emption of fundamental principles. So long as the claimed process is limited to a practical application of a fundamental principle to transform specific data, and the claim is limited to a visual depiction that represents specific physical objects or substances, there is no danger that the scope of the claim would wholly pre-empt all uses of the principle. *Id.* at 1397.

Thus, in Bilski, the Federal Circuit unequivocally established that the transformation of data representing a physical object satisfies the transformation prong of the machine-or-transformation test. If the Office is to interpret the transformation prong in contravention to the standard outlined by the Federal Circuit, the Office is respectfully requested to provide authoritative support therefor.

Claim 1 meets at least the transformation prong of the machine-or-transformation test because it transforms data of an image representing a scene including physical objects into image data of a different resolution. Therefore, the method of claim 1 transforms data representative of physical objects and complies with the transformation prong of the machine-or-transformation test set forth in Bilski.

Accordingly, Applicants respectfully submit that claim 1, as well as the claims depending therefrom, recite patentable subject matter under 35 U.S.C. § 101. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejections Under Cited Art

Claims 1, 6, 7, 50, 51, 54-58, and 61-64 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hsu (U.S. Patent 6,404,920). This rejection is respectfully traversed.

Applicants respectfully submit that Hsu does not disclose or suggest all the recited features of the claimed invention for at least the following reasons.

Claim 1 recites a method for identifying objects in an image. The method of claim 1 comprises receiving an image with a first resolution, where the image represents a scene that includes physical objects. The method of claim 1 comprises transforming the image at the first resolution to an image at a second resolution, where the first resolution is higher than the second resolution.

In addition, the method of claim 1 comprises processing the image at the second resolution to identify an object among the physical objects in the image at the second resolution. The method of claim 1 also comprises selecting a detection algorithm from among plural detection algorithms based on a condition associated with the object identified at the second resolution.

Furthermore, the method of claim 1 comprises processing the image at the first resolution using the object identified at the second resolution to identify another object from among the physical objects in the image at the first resolution according to the selected detection algorithm.

Hsu discloses a system for generalizing objects and features in an image. In col. 14, Hsu describes a number of examples (a-g) of object generation by creating regions from edge-based pixels using spatial morphological processes. Accordingly, examples (a-g) of Hsu disclose various techniques for edge detection.

In striving to arrive at the subject matter of claim 1, the Examiner chose "example d", which describes a method of connecting individual regions, as allegedly corresponding to the operation of selecting a detection algorithm, as recited in claim 1. Even if the examples a-g can be considered to be plural detection algorithms, the selection of example d cannot correspond to an operation of selecting a detection algorithm, where the selection is based on a condition associated with an object identified at a second resolution, as recited in claim 1, because example d was not chosen based on a condition associated with an object that is identified at the second resolution. The selection of algorithm d is not based in any way on a condition associated with the detected edges. On the contrary, it appears that the Examiner already selected example d, alleging that a region created by edges constitute a condition as recited in claim 1. This alleged condition is part of already selected example d, so example d cannot be selected based on a condition associated with an object identified at a second resolution. There is no disclosure in Hsu as to how any of examples a-g are chosen. Accordingly, Hsu does not disclose or suggest selecting a detection algorithm from among plural detection algorithms based on a condition associated with the object identified at the second resolution, as recited in claim 1.

In addition, at least because Hsu does not disclose or suggest the step of selecting a detection algorithm, Hsu does not disclose or suggest processing according to the selected algorithm, as recited in claim 1.

In step 120 of Hsu, multiple images are integrated to create or define common edges or edges in the original images. These common edges are identified by the Examiner as allegedly corresponding to the "another object" recited in claim 1.

However, even if the edges can be considered an object, the common edges cannot be considered to be another object, as recited in claim 1. On the contrary, the common or overlapping edges of Hsu are integrated or merged together to form a single object.

Accordingly, Hsu does not disclose or suggest processing the image at the first resolution using the object identified at the second resolution to identify another object in the image at the first resolution according to the selected detection algorithm, as recited in claim 1.

For at least the foregoing reasons, Hsu does not disclose all of the recited features of claim 1. Accordingly, claim 1 is allowable. Claim 57 is allowable for at least similar reasons to the above. Claims 2-9 and 50-64 are allowable by virtue of their dependency from allowable claims 1 and 57 and on their own merits.

The foregoing discussion of the patentability of independent claims 1 and 57 is sufficiently clear such that it is believed to be unnecessary to demonstrate the additional patentable features of the dependent claims other than those discussed above. However, Applicant reserves the right to do so should it become appropriate.

Allowable Subject Matter

Applicants acknowledge that claims 4, 5, and 53 contain allowable subject matter.

Because the respective base claims are allowable, rewriting the claims into independent form is believed to be unnecessary.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance. Accordingly, Applicants request a favorable examination and consideration of the instant application.

If, after reviewing this Amendment, the Examiner believes there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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